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ABSTRACT

Data delimited by the phonology-to-semantics framework of mainstream linguistics are inadequate to account for the subtle influences of first language (L1) upon second language (L2). Unique errors for which there is no L1 correlate are found in samples of written English produced by Japanese and Chinese second language learners. This is due to a variety of language transfer from L1 function to L2 form. In investigating the nature and causes of this variety of transfer, these questions are asked: (1) Does any part of written English that is identifiable as non-native reflect attempts by the learner to match features of English syntax to certain discourse functions? (2) Does this occur especially in cases where such functions are marked differently in the learner's native language than they are in English? (3) Do learner attempts to encode in English the notions topic/comment, theme/rheme, and so on differ from those of a native speaker of English? (4) What syntactic devices do different learners resort to for such purposes? Close study of written discourse will provide answers to these questions and more knowledge about the dynamic processes of language acquisition. (PMJ)

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DISCOURSE FUNCTION AND LANGUAGE TRANSFER

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It is well known that at any stage in the learning of a language by adults there are observable features of learner production that can be attributed to influence by the learner's native language. Such influences, when manifested as identifiable errors, are what one usually refers to as "negative transfer" or "interference" errors. It is also the case that past studies of L_1 influence upon L_2 learning have drawn their data from just those language sub-areas that comprised what until recently was properly held to be the field of mainstream linguistics, those areas being phonology, morphology, syntax, and to some extent semantics. We wish to ask, however, whether this conventional phonology-to-semantics framework is really adequate for the study of L_1-L_2 influence, and whether there are possibly other perhaps less obvious ways in which L_2 production is affected by L_1. We are aware, for example, that many of the rules of English syntax, apart from their proposed formal analyses, seem to have their own reason or purpose for being and that a number of recent studies have been investigating this.[1] Therefore, if L_1 can influence L_2 with respect to the observable features of surface syntax, is it not also possible that influence can be manifested as well by whatever purpose such L_1 features are designed to serve? More specifically, we wish to ask the following:

1. Does any part of written English that is identifiable as non-native reflect attempts by the learner to match features of English syntax to certain discourse functions, especially in cases where such functions are marked differently in the learner's native language than they are in English?
2. Are learner attempts to encode in English the notions topic/comment, theme/rheme, etc. different from those of a native speaker of English? If so, what syntactic devices do different learners resort to for such purposes?

Our answer to such questions is an affirmative one, and in the remainder of this paper we will first provide evidence for our conclusions and then propose some new perspectives for the consideration of the notions of overproduction and transfer error. Finally, we will suggest some promising directions that future research in these areas might take.

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We begin by calling your attention to some facts gleaned from inspection by us of samples of written English produced by foreign students taking English at the American Language Institute at the University of Southern California:

A. The English surface form that results from application of the rule called "extraposition"[2] is one that is produced

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with surprising frequency by learners whose native language is Japanese--more often, in fact, than by those who speak Spanish, Arabic, Persian, and Mandarin. A count of the instances of extraposition sentences in 525 compositions, for example, shows that the Japanese learners produced an average of 3 extraposition sentences in every 4 compositions whereas learners with these other native language backgrounds produced only an average of 2 extraposition sentences in every five compositions. It would appear that the Japanese learners are overproducing these constructions.

Examples:

1. It is believed that sweet flag leaves contain the power to expel sickness and evil (J17).
2. It is very unfortunate . . . that prosperity of our country only results from a sacrifice of workers (J7).

Also produced by the Japanese learners is an extraposition error type that we do not find in the writing of the other groups:

Examples:

3. ?The computer is called the 'brain' because it is the very important thing that the computer can remember (J1).
4. ?It is a tendency that such friendly restaurants become less in the big city (J12).

B. Existential constructions with dummy subject <u>there</u> are also produced with surprising regularity by learners whose native language is Chinese--again more often than by the Spanish, Arab, Persian and Japanese learners, although the difference in frequency is not as great as the one mentioned above. In a count of existential constructions in 100 compositions, the Chinese learners produced an average of 4 existentials in every 5 compositions, whereas the learners of other native languages produced an average of 3 in every 4 compositions.

Examples:

5. There is a small restaurant near my house in my country. Many things of the restaurant are like those of Marty's luncheonette (C22).
6. There are many different races that you can find in a small island such as Singapore. The Malays are what you call the natives (C24).

Also produced by the Chinese learners is an error type in existential sentences that we do not find in the writing of other groups.

Examples:

7. ?There is a tire hanging from the roof served as their playground (C40).
8. ?There were many new patriots in my country gathered together and established a new country (C6).

Now obviously it should occasion no surprise that learners with particular native languages, in this case Japanese and Chinese, will produce specific error types in their use of the target language construction in question. In fact, the term "interference error" has been coined for reference to just those cases where a feature of L_1 has been erroneously carried over into production of L_2. And instances of error types unique to learners of a particular native language background are customarily assumed to be interference errors. What is interesting about the examples cited above, however, is that although they are produced with noticeable regularity, there are no constructions in the surface structure of either Japanese or Chinese that correspond to English extrapositions and existentials. Japanese and Chinese share characteristics that, among other things, often make it unnecessary for subject position to be filled at all, much less filled with dummy elements corresponding to English it or there. One might reasonably expect, therefore, that speakers of these languages would produce fewer such constructions in English. What then leads them to resort more often to the use of such constructions? We do not claim to have the answer to this question, but we do have what we consider to be a first order hypothesis that we will offer for your consideration. We wish to lead into this, however, by way of a brief discussion of some aspects of the cross-language coding of certain discourse functions.

It is commonly recognized that many of the syntactic structures of a language serve definable functions within discourse. It is also true that a given structure may serve a variety of discourse functions and that a given function may be implemented by more than one structure. There is, in other words, no necessary one-to-one correspondence. For example, the double form/function requirement in English--(a) that subject position always be filled, and (b) that in the neutrally marked topic/comment pattern new information occurs in the highest verb phrase constituent--has spawned a number of sentence constructions that are generated through movement transformation (i.e.raising, lowering, fronting, and backing). The choice of which construction to use--or in which syntactic "package" (Chafe 1976) to wrap the semantic content--would be controlled by the discourse considerations of information arrangement. Thus, a choice between, for example, the sentential subject and extraposition versions of the second sentence in the following pairs would be determined by what has preceded:

A.1. Dr. Weiss is carefully considering tomorrow's experiment.
2. It is his opinion at the moment that it might not work.
B.1. Several scientistis are of the opinion that tomorrow's experiment might not be successful.
2. That it might not work is also Dr. Weiss's opinion.

In other words, some part of the semantic content of the contextual sentences (A1 and B1) constitutes the topic of the underlined sentences (A2 and B2), thereby constraining the available syntactic choices.

Although it is not nearly so well known how other, especially

radically different, languages encode discourse functions, progress is beginning to be made in this area, as revealed by a number of current studies. A recent seminal article by Li and Thompson (1976), "Subject and Topic: A New Typology of Language," provides a useful framework for observing aspects of discourse-function encoding across languages. Li and Thompson hold that it is more meaningful to divide languages typologically not in terms of the traditional SVO/SOV/etc. word order distinction but rather on the basis of whether languages manifest as basic grammatical relations Subject-predicate on the one hand or Topic-comment on the other. Given such a typological framework, the distinction between the notions of subject and topic becomes crucial. For a detailed discussion on the criteria underlying this distinction we refer you to the article just mentioned; we quote here only a portion of their summation:

> "We may single out 3 basic factors underlying these criteria ... for distinguishing between T[opic] and S[ubject]: discourse strategy, noun-verb relations, and grammatical processes. The subject has a minimal discourse function in contrast with the topic. ...the topic, but not necessarily the subject, is discourse-dependent, serves as the center of attention in the sentence, and must be definite. As for N-V relations and grammatical processes, it is the subject rather than the topic that figures prominently. Thus subject is normally determined by the verb and selectionally related to the verb; and the subject often obligatorily controls verb agreement. These properties of the subject are <u>not</u> shared by the topic. In conclusion the topic is a discourse notion whereas the subject is to a greater extent a sentence-internal notion ..." (p.466)

Li and Thompson show that unlike English, whose sentences can be talked about most meaningfully with reference to the grammatical relation subject-predicate, in topic-prominent languages the most basic constructions display rather the discourse relation, topic-comment. (That is, in such languages, in contrast to English, the topic-comment construction cannot be viewed as being derived from any sentence type.) The tendencies for languages to give prominence, or not, to one or the other of these two systems provide Li and Thompson with a four-way typological distinction:

1. Subject-prominent languages (e.g. English)
2. Topic-prominent languages (e.g. Mandarin)
3. Both subject-prominent and topic-prominent (e.g. Japanese)
4. Neither subject-prominent nor topic-prominent (e.g. Tagalog)

We wish to make it clear, however, that although topic-comment constructions are not basic to subject-prominent languages, these languages do have topicalization devices that can reflect this sentence type. For example, the subject-predicate relation in English is typified by a sentence like "John prefers Picasso" but we also have topic-comment constructions such as the sentence "As for modern art, John prefers Picasso." Conversely, although topic-comment constructions are basic to topic-prominent languages, some also have sentences which exhibit subject-predicate form. The English translation of a typical Mandarin topic-

comment sentence might be "Airplanes, the 747 is big." Also grammatical in Mandarin is the subject-predicate sentence whose English translation would be "The 747 is big." It should be understood, then, that many topic-prominent languages can still have subjects and many subject-prominent languages can still have topics; the typological distinctions we speak of are rather reflections of a given language's basic sentential relationships.

Topic-prominent languages have other characteristics which set them apart from subject-prominent languages like English. Some of these characteristics are as follows:

1. In surface coding: Topic (although not necessarily subject) is always coded in topic-prominent languages. In Chinese, for example, topic always occurs in sentence-initial position; in Japanese topic normally occurs sentence initially and is always marked with the particle wa.
2. In expression of voice: The passive construction, as it is seen in English, either is rare, doesn't occur at all, or occurs but carries some special meaning. For example, in Chinese the passive is extremely rare in both speech and writing and in both Chinese and Japanese it can carry a connotation of adversity.
3. With regard to grammatical place-holders: Sentences with dummy subjects like it in extraposition sentences and there in existential sentences of English don't occur in topic-prominent languages. In such languages, sentences in which no subject is called for semantically can simply do without one.
4. With regard to language typology: Topic-prominent languages tend to be those whose canonical sentence form puts the verb in final position. In Japanese this rule is a fairly rigid one.
5. With regard to basic sentence form: Sentences of the topic-comment form are to be considered as basic in topic-prominent languages and not automatically derivable from some other sentence type.

Topic-prominent languages also set themselves apart from English in another way. They tend to use word order for the expression of discourse function, whereas English, a subject-prominent language, uses word-order almost exclusively to signal grammatical relations. Related to this is the fact that deletion in Chinese and Japanese is determined by discourse factors and is not subject to the kind of syntactic constraints that control deletion in English. One clear indication of this is revealed in a kind of error that Chinese and Japanese learners of English make as they are, apparently, trying to sort out the radically different and complex characteristics of grammatical word-order and subject-prominence. They make errors like these:

9. ?Most of food which is served in such restaurant/have cooked already (J).
10. ?Irrational emotions are bad but rational emotions/ must use for judging (J).
11. ?Chiang's food/ must make in the kitchen of the restaurant but Marty's food/could make in his house (C).

12. ?If I have finished these four jobs, I am confident that my company/can list in the biggest 100 companies in the world (C).

Now what is interesting is that a random sample of our language teachers at the American Language Institute unanimously diagnosed the above errors as having to do with a confusion between active and passive. They would argue for instance that number 9 should have been "Most of the food which is served at such a restaurant has been cooked already." In arguing thus, they conform to the constraints, typical in subject-prominent languages, which require that there be a surface subject ("most of the food" in this case) and also require that the surface subject control verb agreement, thus "has been cooked." But in fact these sentences are a direct reflection of the surface syntax of Chinese and Japanese and topic-comment form. Bilingual English-Chinese and English-Japanese speakers inform us that it is far more plausible to interpret the initial noun phrases in each example as a topic, unrelated grammatically to the following verb, whose actual subject and often object are simply not required by the native language discourse conventions. By this reasoning, fuller readings of 9-12, for example, would be:

9a. Most of the food which is served in such restaurants [they] have cooked [it] already.

10a. Irrational emotions are bad, but rational emotions, [one] must use [them] for judging.

11a. Chiang's food [he] must make [it] in the kitchen of the restaurant, but Marty's food [he] could make [it] in his house.

12a If I have finished these 4 jobs, I am confident that my company [they] can list [it] in the biggest 100 companies in the world.

These sentences are therefore very probably not examples of malformed passives but rather examples of the carryover into the target language of native language function-form characteristics.

In topic-prominent languages like Chinese and Japanese (which is also of course subject-prominent), canonical sentence form puts topic first and comment second. Topic is always "given," has already been raised to consciousness, so to speak, while comment represents "new" information, or what is said about the topic. It follows then that before something becomes a topic it has to be introduced, or raised to consciousness. An introduced referent that is to become a topic is therefore itself "new" and, by the conventions of discourse in topic-prominent languages, will appear in the comment.

Let us now return to a consideration of the learner production cited earlier. Recall that we are dealing with efforts in written English of adult learners whose native languages are topic-prominent and whose expectations about (or experiences with) discourse functions are presumably at wide variance with those of native English speakers. We feel it is reasonable to assume that they would bring to the task of learning English the following (probably subconscious) expectations:

1. That word order is indicative, among other things, of discourse function.
2. That the position of leftmost, preverbal noun phrases is often reserved for topics.
3. That new information, destined to become a topic, will not occur in sentence initial position.

Now since we find the Chinese and Japanese speakers producing the English extraposition and existential dummy subject sentences at a great rate, we need to ask what discourse functions the learners are using them for. If we look more closely at the samples of learner production in examples 1-4 we find that English extraposition constructions are being used almost exclusively by Japanese learners to make generic statements concerning general facts and beliefs, which serve as settings for future topics. In examples 1a-4a the bracketed constituents are the generic statements.

1a. It is believed [that sweet flag leaves contain the power to expel sickness and evil] (J17).
2a. It is very unfortunate . . .[that prosperity of our country only results from a sacrifice of workers] (J7).
3a. ?The computer is called the 'brain' because it is the very important thing [that the computer can remember] (J1).
4a. ?It is a tendency [that such friendly restaurants become less in the big city] (J12).

We do not find extraposition sentences, for example, such as "It will be difficult to finish the composition" where the main verb is predicated of a non-generic noun phrase.

We also find that English existential constructions are being used almost exclusively by Chinese learners to introduce new referents which serve as subsequent topics.
In examples 5a-8a the underlined constructions serve to introduce new topics.

5a. <u>There is a small restaurant</u> near my house in my country. Many things of this restaurant are like those of Marty's luncheonette (C22).
6a. <u>There are many different races</u> that you can find in a small island such as Singapore. The Malays are what you call the natives (C24).
7a. ?<u>There is a tire</u> hanging from the roof served as their playground (C40).
8a. ?<u>There were many new patriots</u> in my country gathered together and established a new country (C6).

We do not find existential sentences, for example, such as the second of the following pair (intended as a partial conversation) where the existential construction includes a noun phrase which has previously been introduced as a topic:

9 A: Good restaurants are hard to find.
  B: <u>There's a good restaurant down the street</u>.

There is other evidence available to support the contention that L_1 discourse patterns can influence L_2 syntax. A study by Thomas Huebner (1979) reveals, among other things, that the familiar "morpheme acquisition order" method of research fails to provide an explanation for certain aspects of the acquisition of the English determiner system by a speaker of Hmong, a topic-prominent language of the Sino-Tibetan group in Southeast Asia. This speaker's interlanguage consistently omitted the English definite

article for subject position noun phrases though not for noun phrases in object position. Huebner's conclusion is that the topic-prominent typological characteristics of Hmong have contributed to an interlanguage hypothesis of the learner in which he identifies as a topic in English any sentence-initial noun phrase carrying the feature of definiteness. But since topics in topic-prominent languages are typically definite (in that they represent information already introduced into the discourse) and since they therefore are often not marked as topics (other than by position), then the learner also sees no need to mark (redundantly) what he perceives as a topic in English. Hence the occurrence in the interlanguage of this learner, of subject noun phrases with missing definite articles, and a striking example of the influence of a feature of L_1 discourse upon the acquisition of L_2 syntax.

With these observations in mind, we hypothesize that learners of English whose native language is topic-prominent might be employing a strategy of the following kind:

1. They learn the form of a construction in the target language.
2. They hypothesize (partially correctly) that the form is used to express a particular discourse function; this hypothesis is consistent with the constraints within their own native language upon the interplay between syntactic form and discourse function in topic-prominent languages.
3. When the need arises within a target language context to express that particular discourse function, they use the form they have hypothesized is associated with that function.
4. The result is twofold: (a) a kind of "overproduction" of the construction in question (since that one construction is being made to serve a discourse function that in target language use is served by other constructions as well), and (b) the production of a unique error-type (since the grammatical restrictions on the syntactic environment in which the form can occur have to be broken occasionally in order that the form may bear the heavy discourse function load being demanded of it).

If we have interpreted the data accurately, then the results have some important implications for the future study of L_2 learner production. We believe that the notions "overproduction" and "transfer" need to be reconsidered along the following lines. Whatever at first inspection looks like overproduction of a particular form by learners with a homogeneous native-language background should be closely scrutinized to see it the form is being made to support a discourse function that is too heavy. If so, then that"overproduction" is an instance of a new and different variety of language transfer, namely from L_1 function to L_2 form. If within the overproduction there occur systematic error types produced exclusively by those same learners then those error types should be considered cases of a new and different variety of transfer errors, namely one that represents a carryover not of surface syntax from L_1 to L_2 but rather of L_1 function-form constraints to L_2. Thus we are suggesting that the cases of overproduction and error types

discussed here be considered as special cases of language transfer and that therefore the notion of language transfer itself should be widened accordingly.

Behind the issues that we have touched upon in this paper there is an implicit assumption which we wish now to make explicit. This assumption is that for any research that purports to shed light on the dynamic processes of language acquisition, it is necessary that the researcher focus attention on that particular property that makes of language itself a dynamic phenomenon: namely, discourse. This is not to say (as some appear to be doing) that a search for insights into language function and discourse is incompatable with the segmentation and classification procedures of traditional linguistic analysis. On the contrary, it is the very discreteness of linguistic elements that renders identifiable the various ways in which linguistic form is encoded for the realization of language function. We feel, however, that it is potentially counterproductive for language acquisition research to attempt to base conclusions exclusively upon the distributional patterns of observable language isolates in surface syntax.

There is a growing body of important literature in theoretical linguistics (e.g., the papers in Grossman, et al., 1975) which has been re-examining from the perspective of function, discourse, and human processing techniques, the nature of syntactic phenomena that until recently were considered totally accounted for. There is also a growing body of literature in second language research which has been investigating the acquisition by children of discourse function (e.g., Hatch 1978, Keller-Cohen in press, Wagner-Gough 1975). In this same spirit, we believe that research in language transfer should, whenever possible, transcend study of the patterning of the formal exponents of language and focus as well upon the inevitable systematic attempts by the learner to make the formal exponents serve functional ends.

FOOTNOTES

1. Different functional accounts of English extraposition, for example, appear in Ziv (1975), Jacobs (1975), Tannenhaus & Carroll (1975), Langacker (1974), and Thompson (1978).

2. Although "extraposition" usually refers to a process, we will henceforth use that term to designate as well the construction resulting from implementation of the process. We will thus have recourse to phrases like "learner production of extraposition," etc.

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